UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,265	11/20/2001	Man Kuk Lo	SC1000AH	2987

23125 7590 04/24/2006		EXAMINER
FREESCALE SEMICONDUCTOR, INC.		SEFCHECK, GREGORY B
LAW DEPARTMENT		

ART UNIT	PAPER NUMBER
2616	

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DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/989,265	LO ET AL.
	Examiner	Art Unit	
	Gregory B. Sefcheck	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>02 March 2006</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-6 and 14-16</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-6 and 14-16</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

- Applicant's Amendment filed 3/2/2006 is acknowledged.

- Claim 2 has been amended.

- Claims 7-13 have been cancelled.

- Claims 14-16 have been added.

- Claims 1-6 and 14-16 are pending.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1 and 3-6 are rejected under 35 U.S.C. 102(e) as being anticipated by

Levay et al. (US006480892B1), hereafter Levay.

-    In regards to Claims 1 and 3-6,

Levay discloses an apparatus and method for processing IP/RTP packets

(Abstract; Figs. 1, 3, and 7; claim 1,5 – Real Time Protocol packet handler).

Referring to Fig. 1, Levay discloses apparatus 12 comprising network interfaces 20-22 that receives IP packets from an Ethernet communication medium (Col. 2, lines 43-67).

Received packets at the network interfaces 20-22 are communicated to packet filter 24 using a protocol stack implemented through software stored in a memory, inherently executed by a processor, and running on a conventional operating system, such as UNIX (Col. 3, lines 8-28; claim 1,5 – processor coupled to communications medium for receiving IP packets; claim 1,5 – processing unit connected to processor having operating system software executing to control operation thereof).

Referring to Fig. 2, packet filter 24 includes header analyzer 82, which examines the packet header to determine if the packet contains real-time data and compares the header to previously stored header entries in a lookup table 86. If the current packet header matches a previously stored entry, an RTP packet is detected (Fig. 7; Col. 3, lines 35-43; Col. 4, lines 17-30 and 32-48; claim 1 – means for examining the received packets and headers to detect RTP packets; claim 3,5 – means for examining comprises a lookup table for storing RTP packet headers; claim 5 – comparator for comparing current IP packet header with IP packet headers in lookup table, when the current IP header matches one of the stored headers, a RTP is detected).

If the packet is determined to be an RTP packet, packet filter 24 performs processing steps by making function calls (microcode routine) to access services of the RTP layer (Fig. 7; claim 1,5 – RTP packet handler module executing on processor for

processing detected RTP packets; claim 4,6 – RTP packet handler module comprises a microcode routine).

Packets determined not to contain real-time data and/or determined not to be RTP packets are processed through different routine(s) functioning on the apparatus' operating system (Col. 4, lines 29-31 and 43-45; claim 1,5 – non-RTP packets processed by the OS software).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 2 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levay in view of Viswanadham et al. (US20010043614A1), hereafter Viswanadham.

Levay discloses an apparatus and method for processing IP/RTP packets through an Ethernet medium that covers all limitations of the parent claims.

Levay does not explicitly disclose the protocol processor is a RISC processor that includes a dual port memory that is used for communicating with the CPU.

Viswanadham discloses a multi-layer switching apparatus and method. Referring to Fig. 3, Viswanadham discloses the multi-layer switch handling IP traffic

through use of a RISC network management processor 10, coupled to the switch

processor 12, and dual port memory 16 for L2 and L3 header (Pg. 2, paragraphs 31-33;

claim 2,15 – protocol processor comprises a RISC processor). Though Viswanadham

only shows memory 16 coupled directly to processor 12, coupling the memory to RISC

processor 10 would be necessary due to the RISC processor's functionality regarding

routing and management with respect to L2 and L3 headers (Pg. 1-2, paragraphs 25-

27; claim 14,16 – protocol processor includes a dual port memory that is used for

communicating with the central processing unit).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the apparatus and method of Levay by utilizing a RISC processor

and including a dual port memory for communicating with the operating system

processor, as shown by Viswanadham. This would provide parallel processing of data

to enable more flexibility and higher-speed internetworking of LAN/WAN devices.

Response to Arguments

5.   Applicant's arguments filed 3/2/2006 have been fully considered but they are not

persuasive.

   -    In the Remarks on pg. 6-7 of the Amendment, Applicant contends that claims

        1-6 are not anticipated by Levay because Levay does not disclose both a

        CPU and a protocol processor that processes RTP packets.

-   The Examiner respectfully disagrees. As shown in the rejection above, column 3, lines 8-29 of Levay discloses how each network interface communicates with the packet filter using a protocol stack. Levay further discloses that the implementation of the protocol stack and packet filter can be performed through software programs stored in memory by making function calls to access the services of the RTP layer. Levay shows that these software executions run in addition to a conventional operating system that implements the test apparatus, therefore Levay meets the contested limitations of claims.

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B. Sefcheck whose telephone number is 571-272-3098. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GBS
4-19-2006

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